Missouri

Get the Facts

Sudden Cardiac Arrest and Automated External Defibrillators

For every minute after a cardiac arrest occurs and defibrillation is not administered, the victim's chances for survival decreases by 10 percent.

What is sudden cardiac arrest?

Sudden cardiac arrest (SCA) is an abrupt disruption of the heart's function. It causes a lack of blood flow to vital organs resulting in loss of blood pressure, pulse and consciousness. Most victims of SCA have no prior symptoms.

What is the treatment for SCA?

The cardiac chain of survival is the current treatment for SCA. The chain of survival is a series of four critical steps. All four steps of the chain must be present to help ensure survival from SCA. The four steps are:

Step One: Early access to care
Step Two: Early cardiopulmonary resuscitation (CPR)
Step Three: Early defibrillation (AED)
Step Four: Early advanced cardiac life support as needed

What is an automated external defibrillator (AED)?

An automated external defibrillator (AED) is a small, portable device that is attached to a person's chest during a life-threatening situation to deliver a shock to the heart. The AED analyzes the heart's rhythm and, if necessary, allows a rescuer to deliver an electric shock to a victim of sudden cardiac arrest. This shock, called defibrillation, may halt the rapid and chaotic heart activity of the sudden cardiac arrest, and help the heart to re-establish an effective rhythm of its own.

If defibrillation is provided within five to seven minutes, the survival rate from sudden cardiac arrest is as high as 49 percent.

Why use AEDs?

Studies show that cardiac arrest victims are more likely to survive if they receive early defibrillation or CPR. Brain death and permanent death start to occur in just four to six minutes after someone experiences cardiac arrest. Cardiac arrest can be reversed if it is treated within a few minutes with an electric shock to the heart to restore a normal heartbeat.

How does an AED work?

An AED is easy to operate. It uses voice prompts to instruct the rescuer. Once the machine is turned on, the rescuer will be prompted to apply two (2) electrodes provided with the AED to the victim's chest. Once applied, the AED will begin to monitor the victim's heart rhythm. If a "shockable" rhythm is detected, the machine will charge itself and instruct the rescuer to stand clear of the victim and to press the shock button.

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER
Services provided on a nondiscriminatory basis.

Missouri Department of Health and Senior Services
Cancer and Chronic Disease Control• (573) 522-2896
www.dhss.mo.gov/HeartDisease and www.dhss.mo.gov/Stroke